Paper No. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte JAMES SCHWINDEMAN,
RANDY W. HALL, and SONIA S. STRYKER

_____

Appeal No. 2002-2283
Application No. 08/882,513[1]

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ON BRIEF

_____

Before WINTERS, GRON, and NAGUMO, Administrative Patent Judges.

GRON, Administrative Patent Judge.

DECISION ON APPEAL UNDER 35 U.S.C. § 134

Introduction

Based on the Notice of Appeal to the Board Of Patent Appeals And Interferences filed under 37 CFR § 1.191 (Paper No. 24), this is an appeal under 35 U.S.C. § 134 of an examiner's final rejection of "Claims 1-10, 20-22, and 26-31 . . . under 35 U.S.C. § 103(a) as

[1] Application for patent filed June 25, 1997. According to applicant, this application claims benefit under 35 U.S.C. § 119(e) of copending Provisional Applications 60/020,781, filed June 28, 1996, and 60/022,225, filed July 19, 1996.

being unpatentable over Hayase et al. (CA 111:153338 abstract of JP 63227552) for the same reasons set forth in office action mailed in paper no. 14 and 16, dated 3/11/99 and 1/11/99" (Paper No. 21/22). We decide this appeal with trepidation. We are generally disappointed by its presentation.

Preliminary Remarks

Examiner's Answers should clearly and completely present the PTO's case for unpatentability of the subject matter appellants claim. They should consider and respond to the arguments expressed in appellants' briefs. Here, the Examiner's Answer is markedly deficient. When the smoke clears, we find an inadequate explanation why applicant's claims are unpatentable.

A. Several problems with the Examiner's Answer are apparent. The inaccuracies, oversights, and omissions in the Examiner's Answer do not give the reviewer confidence that the substantive issues of claim construction and obviousness have been adequately addressed. We particularly note the following in the hope that the examiner will be more attentive to "formal issues" in the future.

1. The status of Claim 32 is unclear. Although the Examiner's Answer states that "Claim 32 filed after Final rejection was not entered" (EA 2) and "Claim 32 was not entered and is not under consideration" (EA 3), we find that Claim 32 was entered of

record in Application 08/882,513 by amendment dated May 4, 2000 (Paper No. 19) prior to the final rejection. In an Office action dated May 24, 2000 (Paper No. 21/22), the examiner stated that Claims 1-10, 20-22, and 26-31 were pending and finally rejected the claims under 35 U.S.C. § 103(a) as being unpatentable over Hayase et al., CA 111:153338 (abstract of JP 63227552)("Hayase"), or Erra-Balsells et al., CA 111:39159 (abstract of An. Assoc. Quim. Argent. (1988), 76(4), 285-296). New Claim 32, entered May 4, 2000, was not mentioned in the May 24, 2000, Office action. On October 27, 2000, applicants filed notice of appeal of the examiner's final rejection of Claims 1-10, 20-22, and 26-31 (Paper No. 24) and an Amendment After Final Action Pursuant To 37 C.F.R. § 1.116 amending Claim 32 (Paper No. 25). The examiner denied entry of applicants' Claim 32, as amended after final (Paper No. 25), in the Office communication dated November 9, 2000 (Paper No. 26), stating that:

> The affidavit, exhibit or request for reconsideration has been considered but does NOT place the application in condition for allowance because: the declaration and arguments are not found persuasive.
>
> For purposes of Appeal, the status of the claims is as follows: Claims rejected 1-10, 20-22, and 26-32.
>
> Other: Rejection over Erra-Balsells et al. is withdrawn because claims are amended. Rejection over Hayase et al. is maintained because (1) the data in the declaration is not considered a side by side comparison (starting material amine is different) (2) Bis product

> are not claimed, "preparation of haloamine electrophiles" are claimed.

Appellants' Appeal Brief (Paper No. 28) states the status of the claims as follows (AB 1):

> The present appeal involves Claims 1-10, 20-22 and 26-32, which are currently under a final rejection as set forth in the second final Office Action dated May 24, 2000.

Appellants contest the propriety of the examiner's conclusion that pending Claims 1-10, 20-22, and 26-32 are unpatentable under 35 U.S.C. § 103 in view of Hayase et al., CA 111:153338 (abstract of JP 63227552). In the Examiner's Answer, however, the examiner maintains that "Claim 32 filed after Final rejection was not entered" (EA 2), "Claim 32 was not entered and is not under consideration" (EA 3), and "Claims 1-10, 20-22 and 26-31 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hayase et al." (EA 4). In our view, the examiner never rejected pending Claim 32. Therefore, no rejection of Claim 32 is before us in this appeal under 35 U.S.C. § 134. Such lapses in prosecution often result from casual use of form paragraphs.

2. The Examiner's Answer suggests that "[t]he brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is

contained [sic] in the brief" (EA 2). To the contrary, the Appeal Brief expressly states that "[t]here are no related appeals and/or interferences involving this application or its subject matter" (AB 1).

3. The Examiner's Answer suggests that "[t]he rejection of claims stand [sic] or fall [sic] together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof" (EA 4). To the contrary, the Appeal Brief explicitly states (AB 5):

> Claims 1-4, 9-10, 20, 27-28, and 30-31 may be considered together.
>
> Claims 5-8, 21-22, and 32 stand separately as reciting dihaloalkane or dihaloalkene reagents which include at least three carbon atoms separating the halide substituents, a further feature that is neither taught nor suggested by the cited reference.
>
> Claims 26 and 29 stand separately as reciting bromine and chlorine halide substituents, a further feature that is neither taught nor suggested by the cited reference.

4. The Examiner's Answer does not establish the full scope and content of the prior art. The sole reference, over which the patentability of the subject matter applicants' claims stand rejected, is an abstract of Japanese Kokai Patent Application 63-227552, i.e., CA 111:153338, accession number 1989:553338

CAPLUS, not the full disclosure of the published Japanese Kokai. Moreover, the record before us contains, and the examiner appears to have relied upon, a CAPLUS (Copyright 2002 ACS) print out of CA 111:153338, not the original published chemical abstract itself. On the face of this document, there is no clear evidence of the date of entry of the abstract into the database or its accessibility to the public. Nor does the Examiner's Answer identify the date of entry or accessibility. Nevertheless, we accept appellants' failure to contest the status of the abstract as prior art as an acknowledgment that CA 111:153338 is prior art to their application.

5. The Examiner's Answer not only improperly and incompletely cites In re Durden, 763 F.2d 1406, 226 USPQ 359 (Fed Cir. 1985), but it relies upon Durden for the general rule that new processes of preparing one class of chemical compounds would have been prima facie obvious in view of a known process of preparing another class of chemical compounds, which processes are identical but for their starting materials. A cursory consideration of Federal Circuit precedent citing, and/or reconsidering, Durden-like issues, would have led the examiner to avoid such per se rules. See In re Ochiai, 71 F.3d 1565, 1570-71, 37 USPQ2d 1127, 1132 (Fed Cir. 1995)(footnote omitted):

> [T]he examiner incorrectly drew from Durden, a case turning on specific facts, a general obviousness rule: namely, that a process claim is obvious if the prior art references disclose the same general process of using "similar" starting materials. No such per se rule exists. Mere citation of Durden . . . or an other case as a basis for rejecting process claims that differ from the prior art by their use of different starting materials is improper, as it sidesteps the fact-intensive inquiry mandated by section 103.
>
> . . . This method of analysis is founded on legal error because it substitutes supposed per se rules for the particularized inquiry required by section 103. It necessarily produces erroneous results.

Even if the examiner had not been aware of the Federal Circuit's post-Durden jurisprudence, applicants' citation and discussion of Ochiai (Application Paper No. 15, p. 4, and AB 7-9) should have alerted the examiner that the legal basis for the rejection was suspect.

B. Nor does appellants' brief set the standard. We are not even in the batter's box before appellants deliver a bad pitch (Paper No. 28, pp. 2-3):

> Applicants respectfully submit that the Amendment After Final should be entered and considered in this appeal . . . .
>
> Entry of this amendment is respectfully solicited as it does not raise new issues for consideration by the Examiner or in the alternative places [sic] the claim in better form for appeal.
>
> . . . . .

> MPEP 1207 states that "[t]o expedite resolution of cases under final rejection, an amendment filed at any time after final rejection, but before jurisdiction has passed to the Board . . . may be entered upon or after filing of an appeal brief provided that the amendment conforms to the requirements of 37 CFR 1.116." For the foregoing reasons, Applicants submit that the amendment to Claim 32 presented after the final Office Action does meet the requirements of 37 CFR 1.116 and thus should be entered and considered in this appeal.

The relief appellants request is outside of our jurisdiction to grant. 35 U.S.C. § 134(a)(appeal from the rejection of claims). The examiner's decision not to enter the amendment to Claim 32 after final rejection is a petitionable matter, not a matter appealable under 35 U.S.C. § 134. 37 CFR § 1.181(a)(1). As In re Hengehold, 440 F.2d 1395, 169 USPQ 473 (CCPA 1971), instructs at 1403, 169 USPQ at 479 (footnote omitted):

> There are a host of various kinds of decisions an examiner makes in the examination proceeding - mostly matters of a discretionary, procedural or nonsubstantive nature - which have not been and are not now appealable to the board or to this court when they are not directly connected with the merits of issues involving rejections of claims, but traditionally have been settled by petition to the Commissioner.

Discussion

Before we consider the question of obviousness under 35 U.S.C. § 103, we must first determine the metes and bounds of the subject matter claimed. Representative Claims 1, 5, 20 and 26 are reproduced below:

1. A process for preparing haloamine electrophiles, comprising reacting one or more amines with at least one α,ω-dihaloalkane or α,ω-dihaloalkene or a mixture thereof, said α,ω-dihaloalkane or α,ω-dihaloalkene having two displaceable halides, in the absence of a phase transfer catalyst, wherein said reacting step is not initiated by ultraviolet radiation.

5. The process of Claim 1, wherein said at least one α,ω-dihaloalkane or α,ω-dihaloalkene or mixture thereof is selected from the group consisting of 1-bromo-3-chloro-propane, 1-bromo-4-chloro-butane, 1-bromo-5-chloro-pentane, 1-bromo-6-chloro-hexane, 1-bromo-8-chloro-octane, 1,4-dichloro-2-butene, 1,3-dibromopropane, 1,3-dichloropropane, 1,4-dibromobutane, 1,4-dichlorobutane, 1-bromo-3-chloro-2-methylpropane, 1,3-dibromo-2-methyl-propane, 1,3-dichloro-2-methylpropane, 1,3-dichloro-2,2-dimethylpropane, 1,3-dibromo-2,2-dimethylpropane, 1-bromo-3-chloro-2,2-dimethylpropane, and mixtures thereof.

20. A process for preparing haloamine electrophiles, comprising reacting hexamethyleneimine with at least one α,ω-dihaloalkane or α,ω-dihaloalkene or a mixture thereof, said α,ω-dihaloalkane or α,ω-dihaloalkene having two displaceable halides, in the absence of a phase transfer catalyst, wherein said reacting step is not initiated by ultraviolet radiation.

26. The process of Claim 1, wherein said α,ω-dihaloalkane or α,ω-dihaloalkene or a mixture thereof comprises halogen atoms selected from the group consisting of bromine, chlorine and mixture thereof.

Looking at the claims themselves, the phrase "displaceable halides" in independent Claims 1, 20 and 32 is presumed to encompass halides other than the chlorides and bromides of dependent Claim 26. The phrase, however, should not be interpreted

to include all halides because the term "displaceable" then would be meaningless.

We conclude that fluorides are not encompassed by the phrase "displaceable halides" in independent Claims 1, 20, and 32. Applicant's specification supports our claim interpretation. The specification indicates that "X^2 is halogen, such as chlorine and bromine" (Spec., p. 6, l. 3). All exemplary α,ω-dihaloalkanes and α,ω-dihaloalkenes are displaceable chlorides and/or bromides (Spec., p. 6, l. 10-20; pp. 11-22, Examples 1-12). Moreover, appellants cite evidence of record in support of their position that fluorine is much less reactive (displaceable) than other halogens (AB 6; Application Paper No. 15). On this basis, appellants argued that "one skilled in the art recognizes that a terminal fluorine substituent does not act as a leaving group, while terminal bromine and chlorine substituents do." Id. The examiner has not contested appellants' evidence. On balance, we find that the record supports appellants' contention that persons of ordinary skill in this art would have understood the term "displaceable halides" to exclude fluorides.

The examiner does not maintain that applicant's original specification lacks a written description of the subject matter

defined by the present claims on appeal, i.e., wherein halides are limited to "displaceable halides" (independent Claims 1, 20 and 32). Therefore, on this record, we find that the subject matter now claimed is described in the specification as required under 35 U.S.C. § 112, first paragraph. Consistent therewith, we hold that the phrase "displaceable halides" in applicant's claims excludes fluoride.

In addition, the examiner indicated that the terms "α,ω-dihaloalkane" and "α,ω-dihaloalkene" do not encompass 1,2-dihaloethanes and 1,2-dihaloethenes. The examiner acknowledged that "[t]he instant claims differ from the reference in claiming one starting material different by one carbon from Hayase et al. (EA 5). The Examiner's Answer states (EA 5)(emphasis added):

> Hayase et al. discloses preparation of N-(Flouorethyl) aniline [sic] and heterocyclic analogues by the same process. These compounds are useful as insecticides, acaricide, and microbicide. A mixture of $PhNH_2$ and bromo-flouroethane [sic] ($BrCH_2CH_2F$) was heated at 60° for 19 hours to give N-(Flouroethyl) aniline [sic].

Appellants' claims do not stand rejected over JP63-227552 (1988). Therefore, while in a well-founded rejection the disclosure and teachings of Japanese Kokai Patent Application 63-227552 would be before us in all but the most extraordinary cases, they are not here. CA 111:153338 does not appear before us

in any form other than that appearing in a 2002 ACS CAPLUS publication. The 2002 ACS CAPLUS publication is not itself prior art with respect to the subject matter defined by the claims on appeal. However, for purposes of this appeal only, we will presume that the disclosure of the 2002 ACS CAPLUS publication of CA 111:153338 is identical to CA 111:153338 itself. The 2002 ACS CAPLUS publication of record reads:

> The title compds. R1R2NCH2CH2F (I) = [R1 = (substituted) Ph, phenylalkyl, pyridyl, etc.; R2 = H, alkyl haloalkyl, alkanoylalkyl, etc.; or R1R2 = carbazole, (substituted) phenothiazine, etc.; when R1 is substituted Ph, R2 is other than 2-fluoroethyl], useful as insecticides and microbicides [sic], were prepared. A mixt. of PhNH2 and BrCH2CH2F was heated at 60.degree. for 19 h to give N-(2-fluoroethyl)aniline. A soln. contg. I (R1 = Ph, R2 = PhCH2CO) (conc. 500 ppm) gave 75% control of Pseudoperonospora cubensis.

We enter the following findings in light of material information in the 2002 ACS CAPLUS publication of CA 111:153338 (hereafter Hayase):

(1) Hayase describes insecticidal and microbiocidal N-(2-fluoroethyl-), N-aryl- or N-heterocyclic-amines. The N-(2-fluoroethyl-) substituent appears to be necessary for the amines to exhibit insecticidal and/or microbiocidal activity.

(2) Hayase does not teach that N-aryl- or N-heterocyclic-amines with N-fluoroalkyl-substituents other than the

N-(2-fluoroethyl-) substituent it describes show insecticidal and/or microbiocidal activity.

(3) Hayase does not teach that N-aryl- or N-heterocyclic-amines with N-(2-haloethyl-) substituents other than the N-(2-fluoroethyl-) substituent it describes show insecticidal and/or microbiocidal activity.

(4) Hayase gives a single example for preparing insecticidal and/or microbiocidal -(2-fluoroethyl-), N-aryl- or N-heterocyclic-amines whereby "[a] mixt. of PhNH2 and BrCH2CH2F was heated at 60.degree. for 19 h to give N-(2-fluoroethyl)aniline".

(5) Hayase teaches the reaction of an α,ω-dihaloalkyl compound having a single displaceable halide (Br) with an amine. The presence of fluorine in the product taught by Hayase strongly suggests that the remaining halide, i.e., the fluoride, is not "displaceable" within the meaning of appellants' Claim 1.

(6) Regarding the rejection,[2] the examiner argues(EA 5):

> It would have been obvious to one skilled in the art to prepare additional haloamines by reacting any α-ω-dihaloalkane or α,ω-dihaloalkene, because reference

[2] While we believe we have reconstructed the examiner's logic, the Examiner's Answer is not written in standard English. While our concern for logic is more important than our concern for grammar and style, a few editorial corrections in the Examiner's Answer certainly would have enhanced the clarity of the examiner's position.

> teaches the process of making haloamines by reacting a dihaloalkane with an amine. It would be expected to prepare haloamines by reacting any amine or mixtures of amine with dihaloalkane or dihaloalkene or their mixtures.

Therefore, the examiner reasons that unexpected resulted must be shown to establish the patentability of the claimed subject matter (EA 8):

> It was requested by the Examiner for a side by side comparison because it would be expected similar kind of activity among since F, Cl and Br belong to the same group (VII) in periodic classification of elements they share similar properties, however, one is more reactive than the other i.e. F is not a good leaving group than Br or Cl but is not completely inactive therefore a comparison of the process would be more appropriate.

The examiner appears to argue that a fluoride is a "displaceable" halide" (EA 8)(examiner's emphasis):

> Note, that the instant invention is claiming halo alkane [sic] which includes fluorine as taught by the prior art.

The examiner errs as a matter of law and as a matter of fact. First, the examiner's interpretation of the metes and bounds of the claimed subject matter is erroneous. We have held that the process claimed by appellants requires reacting one or more amines with a α,ω-dihaloalkane or α,ω-dihaloalkene having two displaceable halides or a mixture thereof. As a matter of law, we have interpreted the phrase "displaceable halides" to exclude

fluorides. Therefore, the examiner erred in concluding that "[t]he instant invention is claiming halo alkane [sic] which includes fluorine as taught by the prior art" (EA 8 (examiner's emphasis)).

Second, we find that Hayase's process of making N-(2-fluoroethyl)aniline differs from the claimed process in at least two ways. Hayase's compounds differ by at least one carbon in the α,ω-dihaloalkane starting material. Next, Hayase's process does not start with a α,ω-dihaloalkane or α,ω-dihaloalkene having two displaceable halides excluding fluoride. Therefore, at least as to the latter difference, the examiner's analysis of the scope and content of the applied prior art disclosure is erroneous.

Third, because Hayase's teaching is directed to insecticidal or microbiocidal N-(2-fluoroethyl) amines, not to insecticidal or microbiocidal N-haloalkylamines, Hayase, by itself, reasonably would not have taught persons having ordinary skill in the art that other N-haloalkylamines are insecticidal or microbiocidal, or have motivated persons having ordinary skill in the art to make and use other N-haloalkylamines for that same utility. Absent hindsight, nothing in the Periodic Table of Elements (EA 8) would have made up for the deficiencies in Hayase's teaching. Accordingly, the examiner repeatedly erred in holding that (EA 5):

> It would have been obvious to one skilled in the art to prepare additional haloamines by reacting any α,ω-dihaloalkane or α,ω-dihaloalkene, because [the] reference teaches the process of making haloamines by reacting a dihaloalkane with an amine. It would be expected to prepare haloamines by reacting any amine or mixtures of amine with dihaloalkane or dihaloalkene or their mixtures.

Where there are no express teachings in Hayase to support the appealed rejection, the examiner relies on legal precedent for the proposition that obviousness may be inferred (EA 9):

> . . . the difference of only one carbon would be expected to posses [sic] [the] same properties as they [sic] are considered structurally close (homolog). At the time of the invention it would have been obvious to one skilled in the art to use dihaloalkanes as instantly claimed for the similar reaction to form haloamines. Note, that α,ω-dihaloalkane or α,ω-dihaloalkene differ [sic] from the reference dihaloalkyl [sic] in the position of [the] halogen in [the] alkyl chain which would have been obvious to one skilled in the art.
>
> A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill might reasonably infer from the teachings. In re Opprecht, 12 USPQ 2d 1235, 1236 (Fed. Cir. 1989); In re Bode, 193 USPQ 12 (CCPA 1976). A reference is not limited to working examples. In re Fracalossi, 215 USPQ 569 (CCPA 1982).

Thus, the examiner argues that it would have been obvious to substitute other halogens for the fluorine taught by Hayase, and α,ω-dihaloalkanes for the 1-bromo-, 2-fluoroethane taught by Hayase.

The problem with the examiner's position is that the examiner provides no factual basis for these two inferences. As stated in Ex parte Tanksley, 37 USPQ2d 1382, 1386 (Bd. Pat. App. & Int. 1994):

> With respect to the rejections under 35 U.S.C. § 103, we find that the cited prior art provides no suggestion which would have led a person having ordinary skill from "here to there," . . . . We have no doubt that the prior art could be modified in such a manner to arrive at appellants' . . . [invention]. The mere fact, however, that the prior art could be modified would not have made the modification obvious unless the prior art suggests the desirability of the modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) . . . .

Here, the reference the examiner relies upon would not itself have rendered the subject matter appellants claim obvious to a person having ordinary skill in the art.

Ultimately, the examiner asks this Board to affirm the appealed rejection for reasons denounced in In re Ochiai, 71 F.3d 1565, 1570-71, 37 USPQ2d 1127, 1132 (Fed Cir. 1995). This Board recommends that the examiner reread the Federal Circuit's opinion in Ochiai which, we had thought, put to rest generalized Durden-based rejections of the type here appealed. We find no need to paraphrase the well-stated views of the Federal Circuit.

The examiner has the initial burden of proof to show that the subject matter applicants claim is unpatentable. Only after a

reasonable case for unpatentability has been established by the examiner may the burden of proof shift to applicants to show that the subject matter claimed is different from, and unobvious in view of, the applied prior art. Unlike the prior art over which appellants' claims stand rejected in this case, the prior art in In re Brown, 459 F.2d 531, 173 USPQ 685 (CCPA 1972), disclosed a product which reasonably appeared to be "either identical with or slightly different than a product claimed." Id. at 535, 173 USPQ at 688. Here, the examiner presents nothing of the sort. The examiner's rejection here is eminently unfair and unacceptable.

The prior art the examiner applied does not make out a prima facie case for the unpatentability of appellants' claims. Accordingly, we need not, and do not, consider appellants' evidence of unexpected results.

Conclusion

For the reasons stated herein above, it is

ORDERED that the examiner's rejection of Claims 1-10, 20-22 and 26-31 under 35 U.S.C. § 103 is REVERSED.

REVERSED

SHERMAN D. WINTERS Administrative Patent Judge	)	
TEDDY S. GRON Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
MARK NAGUMO Administrative Patent Judge	)	

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